In The Specification:

Please replace the second full paragraph on page 6 and continuing on page 7 with the following amended paragraph:

Figure 2A illustrates a header sheet 102 according to a preferred embodiment of the present invention having a central zone 106, a fin sheet 108, and a series of manifold ports 110. The central zone 106 houses the fin sheet 108 or roll-formed fins that form the extended heat transfer surface. The fin sheets 108 may contain louvres ~~121~~ 111 or other features to control the flow across their surfaces as is known in the art. While the preferred embodiment depicts fin sheets 108, it is contemplated that other types of heat transfer surfaces, such as pin fins, metal foam, or corrugated sheets may be used as heat transfer components. The header sheet 102 may also contain a locator tab 114. While not depicted in Figure 2A, the manifold ports 110 may be on any or all sides of the header sheet 102. As shown in Figure 3 below, they will be depicted as 110f representing manifold ports located on the front side 102f of the header sheet 102, 110l for the ports located on the left side 102l of the header sheet, 110r for ports located on the right side 102r of the header sheet, and 110b for ports located on the back side 102b of the header sheet 102. Further, the number and size of manifold ports 110f, 110r, 110l and 110b may vary according to the flow strategy of the system that they are used in. In addition, these manifold ports 110 may be augmented by similar passages (not shown) for the conveyance of yet additional reactant fluids or diluents.

Please replace the second full paragraph on page 10 and continuing on page 11 with the following amended paragraph:

The burner exhaust flows through a first burner section 105a as defined between a bottom section 109 a bottom sheet ~~102b~~ 102z. The exhaust then enters the left manifold ports 110l, flows through left interleaved manifold ports 122l, and into the next adjacent burner section 105b. The exhaust then flow through the next adjacent burner section 105b and into the right manifold port 110r, through the right interleaved manifold port 122r and into the next adjacent burner section 105b. This process continues through the stack of burner sections 105b until the cooled exhaust gas reaches the burner outlet port 111.

Please replace the second full paragraph on page 11 and continuing on page 12 with the following amended paragraph:

In addition, a second inlet port 180 may be added to direct a secondary flow of feed gas into the reformer 100. The second inlet port 180 is added between one of the header sheets 102 and one of the interleaved sheets 120 defining a cell 104 and introduces feed gas to the reformer section 103. Similarly, a second burner inlet port 190 can be added to direct a secondary flow of burner exhaust gas, fuel, oxidant, or diluent into the burner section 105. In this way, the heat exchange, and corresponding chemical reaction in the reformer section 103 and burner section 105, can be more closely controlled in order to avoid hot spots and limit unwanted chemical reactions. Of course, the number of second inlet ports 180 and second ~~outlet~~ burner inlet ports 190 may be increased beyond the two depicted in Figure 3 depending upon the requirements of the system.

Please replace the first full paragraph on page 16 with the following amended paragraph:

Referring now to Figure 5, another embodiment of the present invention is depicted. In this embodiment, a reformer 300 is depicted having a mixture of serial flow zone reformers ~~301~~ 325 and parallel flow zone reformers ~~302~~ 350. The serial flow zone reformers ~~301~~ 325, for example, may be similar to reformer 100 from Figure 3 or reformer 200 from Figure 4, and is depicted similar to reformer 100 for representative purposes in Figure 5. In the parallel-flow zone reformer ~~302~~ 350 portion, a feed gas inlet port 304a and a feed-gas outlet port 306a are introduced at opposite ends between the bottom sheet 309 of the serial cross-flow reformer ~~301~~ 325 and a first header sheet ~~311a~~ 311 of parallel-flow reformer ~~302~~ 350. A burner gas inlet port 308a and burner gas outlet port 310a is introduced between the first header sheet 311a and an interleaved sheet 313a. Another feed gas inlet port 304b and feed gas outlet port 306b may be introduced between interleaved sheet 313a and the next adjacent header sheet 311a, while another burner gas inlet port 308b and burner gas outlet port 310b may be introduced between header sheet 311 and the ~~next adjacent~~ interleaved sheet 313. In this way, a reformer 300 can have mixtures of serial cross-flow and parallel-cross flow.

Please replace the second full paragraph on page 16 and continuing on page 17 with the following amended paragraph:

The exact mix of serial ~~301~~ 325 and parallel zones ~~302~~ 350 within reformer 300 would depend upon optimization based upon the system being investigated. Systems where exchanger mass, volume, and cost predominate would tend to have a more highly serial architecture.